

REMARKS

Claims 32-56 are pending in the application with claims 32, 36, 40, and 45 amended herein and new claims 53-56 added herein.

Claims 32-52 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Emesh and Kim. Applicants request reconsideration.

Amended claim 32 sets forth a capacitor construction including, among other features, an atomic layer deposited insulative barrier layer to oxygen diffusion between a first electrode and a dielectric layer and/or between the dielectric layer and a second electrode. Pages 2-3 of the Office Action allege that Emesh discloses every limitation of claim 32, except for the barrier layer being atomic layer deposited, and relies upon Kim for such disclosure. However, Applicant asserts that Emesh and Kim do not disclose a barrier layer positioned as set forth in amended claim 32.

Page 2 of the Office Action alleges that barrier layer 64 formed on sidewalls of opening 62 through dielectric layer 60 discloses the barrier layer of claim 32. However, barrier layer 64 is not between electrode 54 and capacitor dielectric 66. Also, barrier layer 64 is not between capacitor dielectric 66 and electrode 68. Accordingly, Emesh fails to disclose or suggest every limitation of claim 32. Kim does not disclose or suggest and is not alleged to disclose or suggest the subject matter absent from Emesh. Combination of references cannot be considered to disclose or suggest subject matter absent from both. At least for such reasons, claim 32 is patentable over Emesh in view of Kim. Claims 33-35 and 53 depend from claim 32 and are patentable at least for such reason as well as for the additional limitations of such claims not disclosed or suggested.

Amended claim 36 sets forth a capacitor construction that includes, among other features, an insulative barrier layer to oxygen diffusion over a first electrode, a capacitor dielectric layer over the barrier layer or between the first electrode and the barrier layer, and a second capacitor electrode over the dielectric layer and the barrier layer. As may be appreciated from the discussion above regarding the deficiencies of Emesh as applied to claim 40, such reference fails to disclose or suggest a barrier layer positioned as set forth in claim 36. Emesh does not disclose or suggest capacitor dielectric 66 over barrier layer 64. Also, Emesh fails to disclose or suggest capacitor dielectric 66 between electrode 54 and barrier layer 64. At least for such reasons, Emesh fails to disclose every limitation of claim 36. Kim is similarly deficient. Accordingly, claim 36 is patentable over Emesh in view of Kim. Claims 37-39, 52, and 54 depend from claim 36 and are patentable at least for such reason as well as for the additional limitations of such claims not disclosed or suggested.

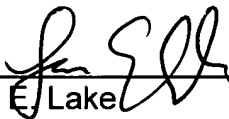
Claims 40 and 45 set forth, among other features, an atomic layer deposited insulative barrier layer to oxygen diffusion between a first electrode and a dielectric layer and/or between the dielectric layer and a second electrode. As may be appreciated from the discussion above regarding the deficiencies of Emesh as applied to claim 32, such reference fails to disclose or suggest the listed limitations of claims 40 and 45. Kim is similarly deficient. At least for such reason, claims 40 and 45 are patentable over Emesh in view of Kim. Claims 41-44, 50, and 55 depend from claim 40 and claims 46-49, 51, and 56 depend from claim 45 and are patentable at least for such reason as well as for the additional limitations of such claims not disclosed or suggested.

Applicant herein establishes adequate reasons supporting allowance of all pending claims 32-56 and request allowance of such claims in the next Office Action.

Along with the Office Action, Applicant received a copy of a Form PTO-1449 previously filed on March 16, 2004 with a Supplemental IDS. However, the Form PTO-1449 did not include examiner initials indicating consideration of the listed references. Applicant requests consideration of the references and a copy of the Form PTO-1449 including examiner initials with the next Office Action.

Respectfully submitted,

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By: 
James E. Lake
Reg. No. 44,854